

Allowed Claims: 1-34

***Examiner's Amendment/Reasons for Allowance/Examiner's Comments***

**Examiner's Amendment**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Laura Wanek on September 10, 2008.

The application has been amended as follows:

1. In the specification, page 1, between lines 3 and 4, insert --  
BACKGROUND OF THE INVENTION--;
2. In the specification, page 3, between lines 4 and 5, insert --SUMMARY  
OF THE INVENTION--;
3. In the specification, page 8, between lines 25 and 26, insert --BRIEF  
DESCRIPTION OF THE DRAWINGS--;
4. In the specification, page 9, between lines 4 and 5, insert --DETAILED  
DESCRIPTION OF THE PREFERRED EMBODIMENTS--;
5. Claim 13, line 2, change "the quarter-wave" to --a quarter-wave--;
6. Claim 23, line 3, delete ", in the reference arm,";
7. Claim 24, line 9, change "comprising an analysis" to --comprising a  
means of analysis--;

8. Claim 24, line 10, change "wave surface analysis" to --means of analysis of the wave surface--;

9. Claim 27, line 3, change "the outward and return paths in the arms" to --outward and return paths--;

10. Claim 32, lines 2-3, delete ", in the measurement arm,"; and

11. Claim 33, lines 2-3, delete ", in the reference arm,".

#### Reasons for Allowance

The following is an examiner's statement of reasons for allowance: none of the prior art either alone or in combination disclose or teach of the claimed combination of limitations to warrant a rejection under 35 USC 102 or 103. Specifically, with reference to independent claim 1, none of the prior art either alone or in combination disclose or teach of the claimed in vivo tomography system specifically including, as the distinguishing features in combination with the other limitations, the adaptive optical means designed to correct wavefronts which comprise a deformable mirror and a means of analyzing the wave surface and the means of adjusting the focusing of the means of analysis of the wave surface wherein the means of adjusting the focusing are arranged to force the deformable mirror to adapt an additional curvature, so as to conjugate the input light source and the means of detection with a point at a predetermined depth in the retina and said means of adjustment being controlled in synchronism with the Z scanning of the OCT tomography setup. Specifically, with reference to independent claim 24, none of the prior art either alone or in combination disclose or teach of the claimed in vivo tomography method specifically including, as the

distinguishing features in combination with the other limitations, the correction of wavefronts originating from the eye by adaptive optical means comprising a means of analysis of the wave surface of the retina, an adjustment of the focusing of the means of analysis of the wave surface, and wherein the focusing adjustment is carried out to conjugate the input light source and the means of detection with a point at a predetermined depth in the retina, in synchronism with the Z scanning of the OCT tomography.

#### Examiner's Comments

Podoleanu et al, Van de Velde, Miller et al, and Izatt et al are being cited herein to show systems and methods having some similar structure and steps with that of the claimed invention.

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

For applicant's information, the drawings received July 20, 2006 have been approved by the examiner.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jordan M. Schwartz whose telephone number is 571-

272-2337. The examiner can normally be reached on Monday to Friday from 8:00 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Mack can be reached on 571-272-2333. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jordan M. Schwartz  
Primary Examiner  
Art Unit 2873  
September 10, 2008

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